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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/560,215

12/09/2005

Masatomi Sato

U 016062-2

2913

140 7590 03/21/2008

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EXAMINER

BRINSON, PATRICK F

ART UNIT

PAPER NUMBER

3754

MAIL DATE

DELIVERY MODE

03/21/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/560,215	<b>Applicant(s)</b> SATO, MASATOMI	
	<b>Examiner</b> Patrick F. Brinson	<b>Art Unit</b> 3754	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. ____.                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>12/09/2005</u> .  | 6) <input type="checkbox"/> Other: ____.                          |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-6, 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. 2002/0112770 to **Fisher et al.** in view of 5,937,911 to **Kodama et al.**

The **Fisher** reference discloses a hose including a pipe body having an inner layer (14) formed of a thermoplastic resin, polyamide, a first heat resistant protective resin layer made of a thermoplastic elastomer (30) and a second heat-resistant, protective resin layer formed from a thermoplastic elastomer, coating the first heat resistant protective resin layer. It is disclosed, paragraph [0032], page 4, that one or both of the elastomer layers (30, 32) may be formed as a closed cell foam. The first elastomer may be co-extruded with core tube (20) such that the inner radial surface of the layer (34) is fusion or otherwise integrally bonded to the outer core surface. The elastomeric thermoplastic layers may have a wall thickness of between 0.13mm and 7.87mm. **Fisher et al.** discloses that the hose may include a fire sleeve (80), but does not disclose the foam thermoplastic elastomers as being fire resistant. The patent to

**Kodama et al.** discloses an automobile fuel hose including an inner polyamide layer (2) and provided thereon is a protective layer formed of a material selected from the group including thermoplastic elastomers. **Kodama et al.** further discloses that the elastomers may contain fire-resistant material. The outer protective layer usually has a thickness of 0.5-3 mm. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the foamed thermoplastic elastomers of **Fisher et al.** to include fire retardant filler as suggested by **Kodama et al.** in order to provide an alternative method of protecting the hose against destruction by fire. As pointed out previously, **Fisher et al.** discloses the inner elastomeric thermoplastic being bonded to the polyamide layer but does not specifically disclose an adhesive layer or the thickness of the layer. It is known to provide adhesives between polyamide and thermoplastic layers in a sufficient thickness in order to bond them.

2. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Fisher et al.** in view of **Kodama et al.** as applied to claim 1 above, and further in view of **Kertesz**.

The patent to **Fisher et al.**, as modified, does not disclose the pipe body as being a single polyamide resin. The patent to **Kertesz** discloses a multilayer flexible conduit, and discloses in fig. 2 a multi layer inner tube (4), including polyamide, but

also discloses, fig. 1 a single inner layer (3) formed of a polyamide. It would have been obvious to one having ordinary skill in the art at the time the invention was made to form the inner core of **Fisher et al.**, as modified with a single layer of polyamide resin, as suggested by **Kertesz**, wherein it is known to provide one or the other depending on the fuel permeability requirements of the hose.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Patrick F. Brinson** whose telephone number is (571) 272-4897. The examiner can normally be reached on M-F 7:30-3:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Kevin P. Shaver** can be reached on (571) 272-4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Patrick F. Brinson/  
Primary Examiner, Art Unit 3754

P. F. Brinson  
March 17, 2008